Economics and Sociology
Occasional Paper No. 1535

CREDIT AND INCOME DISTRIBUTION IN COSTA RICA

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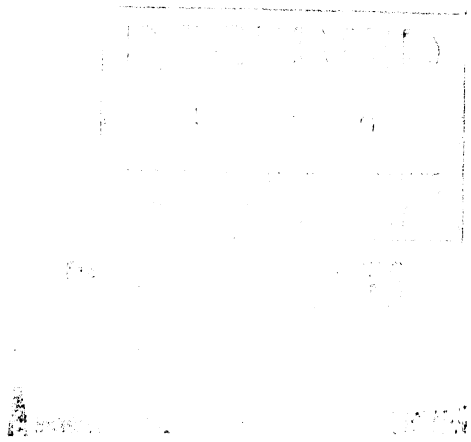

Paper prepared for the World Bank

September, 1988

Revised
December, 1988

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Ceilings on the rates of interest charged on agricultural loans tend to have an undesirable distributional impact on farmers. To benefit from subsidized credit, producers must first become borrowers. Access to institutional credit, however, usually is restricted. A large proportion of rural producers in developing countries are excluded from institutional portfolios and, therefore, from the subsidy. Moreover, the amount of the free transfer of claims on resources is directly proportional to the size of the loan which, in turn, is correlated with wealth and influence. Similarly, when a larger borrower defaults on a loan, a greater wealth transfer takes place. Gonzalez-Vega's "iron law of interest-rate restrictions" claims that, given interest-rate ceilings, institutional lenders engage in rationing practices that redistribute loan portfolios in favor of the largest and least risky borrowers. Small farmers, therefore, not only receive smaller subsidies, but some are rationed out of loan portfolios altogether.

In the case of Costa Rica, the nationalized banking system and other formal lenders have been able to reach a comparatively large proportion (about 40 percent) of the country's farmers with loans. Credit portfolios, however, have been highly concentrated. About 10 percent of the number of borrowers have received about 85 percent of the total amounts of agricultural credit disbursed and, thereby, 85 percent of the implicit subsidy. As Vogel has shown, the distribution of agricultural credit has been more con-

centrated than the distribution of land ownership or of income. The implicit subsidy has represented up to 25 percent of value added in agriculture during years of higher inflation.

Credit programs are more attractive if the funds are granted at a low total cost to the borrower, if funds are disbursed when they are needed, and if their amount is sufficient to satisfy a farmer's demand. Policies designed to make credit cheap, however, have ignored the interdependence between the rates of interest charged on loans and the non-interest costs of borrowing. These non-interest costs include explicit expenses, such as bank commissions and fees, taxes, legal and documentation costs, the borrower's transportation, lodging, and food expenses during trips to the bank, bribes, and the forced purchase of other services. In addition, implicit costs are incurred, such as the value of the time spent in visits to the bank and in completing loan application requirements. Compensatory deposits also increase loan costs along with the lack of timeliness and insufficient loan amounts.

All mechanisms to clear the market in the presence of interest-rate restrictions increase the non-interest costs of borrowing. If loan amounts decline (quantity rationing), average borrowing costs increase. If new fees and commissions, more strict requirements, or more complex procedures are used (implicit pricing), transactions costs rise. Less attractive terms and conditions also imply greater costs per unit of credit. Given these interdependencies, attempts to keep interest rates below equilibrium levels do not necessarily make credit cheap.

Table 1. Agricultural Borrower Costs at a Nationalized Bank in Costa Rica, 1983.

	Interest Rate	Non-Interest Borrowing Costs	Total Costs
Total sample	13.6	11.5	25.1
Loan size (CR$):			
Up to 10,000	12.2	37.1	49.3
over 10,000 to 50,000	12.5	12.6	25.1
over 50,000 to 100,000	13.4	4.4	17.8
over 100,000 to 500,000	15.6	2.8	18.4
over 500,000	20.1	3.4	23.5
Use of the funds:			
Export crops	15.6	5.2	20.8
Livestock	15.8	7.0	22.9
Fruits and vegetables	12.1	8.1	20.2
Basic grains	12.7	26.0	38.8
Education:			
No education	12.8	19.4	32.2
Only primary	13.1	15.4	28.1
Up to secondary	14.0	5.7	19.7
University	17.3	3.7	21.0
Reads and writes	13.6	12.1	25.7
Does not read and write	12.1	23.0	35.1
Distance from branch (Km):			
Up to 1	15.4	3.9	19.3
over 1 and up to 3	14.0	4.0	18.0
over 3 and up to 5	14.0	13.2	27.3
over 5 and up to 10	13.8	12.0	25.9
over 10 and up to 20	13.2	10.5	23.7
over 20	12.3	27.1	39.4
Bank accounts:			
Checking: Yes	17.8	3.9	21.7
No	12.7	13.0	25.7
Savings: Yes	14.1	5.5	19.6
No	13.4	13.4	26.8

Source: Claudio Gonzalez-Vega and Marco A. Gonzalez-Garita (1988).

Gonzalez-Vega and Gonzalez-Garita measured non-interest borrowing costs in Costa Rica, on the basis of a survey of 394 farmers who borrowed from a nationalized bank in 1983. Many producers did not demand loans because transactions costs were too high. Hence, the major consequence of these costs: the exclusion of potential borrowers from market participation cannot be observed. However, the observed level of non-interest costs of borrowing was high. It was 6.8 percent of loan size on the average. When loan maturity was considered, this was equivalent to 11.5 percent per year. Interest rates averaged 13.6 percent; thus, the total cost of the funds was at least 25 percent per year, as shown in Table 1. This high level was surprising, given the small size of the country, the extension of the network of bank branches and of roads, and the nationalization of the banking system. The borrowers were literate (87 percent) and had a long banking experience (on the average over nine years).

As a result, interest payments only represented 54 percent of the total cost of funds. In the case of smaller borrowers (with loans less than US$ 200), interest charges accounted for only 25 percent of total borrowing costs, while for larger borrowers (with loans US$ 10,000 and over) interest costs accounted for 86 percent of total costs. Notable was the dispersion of the non-interest portion of borrowing costs. While interest rates ranged between 8 and 30 percent, non-interest costs ranged between 0.2 and 117.5 percent per year. The total costs of the funds ranged, therefore, between 10.8 and 129.5 percent per year.

The borrowers interviewed in the survey received loans of US$ 2,400 on average. These loans ranged in size between US$ 60 and US$ 32,000. Non-interest borrowing costs declined rapidly with loan size, from 37 percent per year for loans below US$ 200, to 2.8 percent for loans above US$ 1,000. This marked inverse relationship between borrowing costs and loan size highlights the regressive impact of these costs on income distribution. In view of this inverse relationship, a generalized increase in borrower transaction costs would lead to a non-uniform contraction in the demand for loans, with smaller borrowers deciding that the new total cost of the funds is too high, while the impact on larger borrowers would be minimal. For example, a new procedure with an extra cost of US$ 20, will add 10 percentage points to the cost of the funds in the case of a US$ 200 borrower, but only 0.2 percentage points in the case of a US$ 10,000 borrower. Given the limited access to formal credit of small farmers in developing countries, their exclusion from loan portfolios because of high transactions costs has a regressive distributional impact.

The results also showed a significant inverse relationship between non-interest costs and interest rates. This confirmed the existence of a trade-off between the interest and non-interest costs of borrowing. Underequilibrium interest rates generate an excess demand for credit that requires strict rationing and thereby increases borrowing costs. Also, preferential interest rates make it difficult for lenders to cover operating costs and risks of default. They tend to shift, therefore, some of these

costs over to borrowers or try to discourage marginal clients from applying for the subsidized loans.

In these circumstances, raising interest rates may have a positive effect on income distribution. Interest payments would weigh more heavily in the case of larger borrowers and would discourage them from demanding subsidized loans. For smaller borrowers the impact would be proportionately less and probably more than compensated for by the decline in the non-interest costs of borrowing and by the increased access to loans.

The 394 borrowers interviewed made 3,675 trips to the bank branches, with a total duration of 14,700 working hours. This represented an average of 4.5 full working days per client. On average, each borrower had to make 9.3 trips per loan. This reflected the high social opportunity costs of non-price forms of rationing.

High transaction costs imply that society is spending too many resources in operating the financial system and that, as a result, the cost of funds for borrowers is too high, the net rewards for depositors are too low, the profitability of financial intermediaries is unattractive, and the size of financial markets is too small. A large dispersion of transactions costs results in wide divergences among marginal rates of return across the economy and in unexploited opportunities for growth and improved resource allocation. Non-interest borrowing costs, in particular, have a significant impact on the producer's differential access to loans and, therefore, on income and wealth distribution.

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